

## **REMARKS**

Claims 1-7 and 9-14 are now pending in the application. Claims 1, 6, and 10 have been amended herein. Support for the amendments may be found in the original specification, specifically in paragraphs 7, 8, and 31-34, in addition to Figures 3 and 4. Claim 8 has been cancelled. A minor amendment has been made to the specification to correct a minor typographical error. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

## **REJECTION UNDER 35 U.S.C. § 102**

Claims 1-2, 4-6, 8-11, and 13-14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Reddy (U.S. Pat. No. 6,279,548). This rejection is respectfully traversed.

At the outset, Applicant notes that independent Claims 1, 6, and 10 have been amended to more particularly claim embodiments of the present disclosure. The '548 patent discloses an evaporative emission control canister system for reducing breakthrough emissions using an *embedded heating element* (heater 96 in Figure 2 and heater 196 in Figure 3) to heat a portion of the primary canister 50 or a Stage II canister 191 prior to purging air flow. Distinguished from the '548 patent, the presently claimed invention provides a built-in resistance heating system by passing current through the fiber material itself, and does not require a separate embedded heating element.

The teachings of the present disclosure provide a scrubber coupled to a vent inlet of a primary canister. The scrubber is filled with conductive, activated carbon fiber

material that lies between and is in contact with electrodes of an electrically conductive material, such as plates of copper or steel disposed at the inlet and outlet of the scrubber. The electrodes and fiber material form part of a circuit that can be opened or closed. The circuit preferably includes the vehicle's battery or another suitable power source. When the circuit is closed, current passes from one electrode through the activated carbon fiber material to the other electrode. The scrubber is heated as the *activated carbon itself* acts as a resistive heater due to the heat released from the electrical resistance.

Accordingly, independent Claim 1 has been amended to recite a pair of opposing electrodes disposed adjacent the respective inlet and outlet wherein activated carbon fiber material disposed between and in contact with the electrodes provides resistive heating of the scrubber when the circuit is closed. Similarly, independent Claim 6 has been amended to recite a scrubber canister equipped with activated carbon fiber material disposed between opposing conductive metal end plates such that when a closed circuit is formed, current flows between the plates and through the activated carbon fiber material, heating said scrubber to a desired temperature via resistive heating. Additionally, independent Claim 10 has been amended to recite passing an electric current through the activated carbon fiber material and maintaining the current to heat the activated carbon fiber material containing adsorbed vapors to a desired temperature prior to purging vapors from the scrubber.

Applicant respectfully maintains that none of the recited limitations are disclosed by the '548 patent, which does not mention or disclose such resistance heating of the activated carbon fiber material. Further, besides stating the use of an "electrical"

heating element, the only other detailed description of the heating element is found at column 8, lines 8-11, "The temperature sensors 100 (in FIG. 1) and 200 (in FIG. 2) can be eliminated by using a heater (heater 96 in FIG. 2 and heater 196 in FIG. 3) made of a self-regulating positive temperature coefficient material." Therefore, reconsideration and withdrawal of these rejections are respectfully requested.

#### **REJECTION UNDER 35 U.S.C. § 103**

Claims 3, 7 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Reddy (U.S. Pat. No. 6,279,548) in view of Economy et al. (U.S. Pat. No. 3,723,588). This rejection is respectfully traversed.

It is believed that independent Claims 1, 6, and 10, from which Claims 3, 7, and 12 depend, respectively, have been amended herein to overcome any anticipation and obviousness from the prior art. Accordingly, reconsideration and allowance of Claims 3, 7, and 12 are respectfully sought.

#### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the

Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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